

Tasks for ZKU

All code used for this submission can be found [here](#)

Deployed Contract for Task 1:

The screenshot displays the Remix IDE interface. On the left, the 'DEPLOY & RUN TRANSACTIONS' sidebar is active, showing the 'HelloWorld - ZKU_Task1.sol' contract deployed at address 0xB2E...61D8C (BI). The 'storeNumber' function is selected, showing its input '2005' and output '0: uint256: 2005'. The main editor shows the Solidity code for the 'HelloWorld' contract, which includes a state variable 'numberToStore' and functions 'storeNumber' and 'retrieveNumber'. The bottom panel shows a transaction log with a call to 'HelloWorld.retrieveNumber()' returning '0x41f...189d1'.

```
1 // SPDX-License-Identifier: MIT
2
3 pragma solidity 0.8.9;
4
5
6 contract HelloWorld
7 {
8
9     /// @notice The event that emits whenever a new number is stored
10    event NumberStored(uint256 indexed _number);
11
12
13    /// @notice The state variable used to store a number
14    uint256 public numberToStore;
15
16    /// @notice Function to store a given number inside the state variable
17    /// @param _number The number to be stored
18    function storeNumber(uint256 _number) public
19    {
20        numberToStore = _number;
21        emit NumberStored(numberToStore);
22    }
23
24    /// @notice Function to retrieve the stored number inside the contract
25    function retrieveNumber() public view returns(uint256)
26    {
27        return numberToStore;
28    }
29
30 }
```

CALL [call] from: 0x3aa821cEE6194C4aD7e3F3d6E393F646D1Cd65Db to: HelloWorld.retrieveNumber() data: 0x41f...189d1

Completed Transaction for Task 2:

Overview		Logs (1)
Transaction Hash:	0xa4999bf3c3c187c9507b2b53c064adb1784ab5207beaf26260561642010b169	
Status:	Success	
Block:	26172230	5 Block Confirmations
Timestamp:	1 min ago (May-02-2022 01:56:47 PM +UTC)	
From:	0x3aa821ce6194c4ad7e3f3d5e393f646d1cd65db	
To:	Contract 0x60070b1d1d1ba90afde5250776c7f35493ddf	
Value:	0 MATIC (\$0.00)	
Transaction Fee:	0.000229944887440294 MATIC (\$0.00)	
Txn Type:	2 (EIP-1559)	
Gas Limit:	76,882	
Gas Used by Transaction:	76,882 (100%)	
Base Fee Per Gas:	0.00000000490880667 MATIC (0.490880667 Gwei)	
Max Fee Per Gas:	0.000000003339180668 MATIC (3.339180668 Gwei)	
Max Priority Fee Per Gas:	0.0000000025 MATIC (2.5 Gwei)	
Burnt Fees:	0.000037739887440294 MATIC	
Txn Savings:	0.000026778000676882 MATIC	
Gas Price:	0.000000002990880667 MATIC (2.990880667 Gwei)	
Nonce	Position	95 23
Input Data:	Function: vote(uint256 _voteIndex) *** MethodID: 0x0121b93f	

Same Transaction Fails after 5 mins for Task 2:

Overview		Logs (1)
[This is a Polygon PoS Testnet transaction only]		
Transaction Hash:	0x403e1d544110dce0231e1d8264637b18d243880dbd4222621660efbe23620f	
Status:	Fail with error 'Voting Time Exceeded'	
Block:	26172259	2 Block Confirmations
Timestamp:	53 secs ago (May-02-2022 02:01:37 PM +UTC)	
From:	0xb009242166563ecdb208a942880149c05180b	
To:	Contract 0x60070b1d1d1ba90afde5250776c7f35493ddf	
Value:	0 MATIC (\$0.00)	
Transaction Fee:	0.000122478206967568 MATIC (\$0.00)	
Txn Type:	2 (EIP-1559)	
Gas Limit:	3,000,000	
Gas Used by Transaction:	25,814 (0.86%)	
Base Fee Per Gas:	0.000000002244642712 MATIC (2.244642712 Gwei)	
Max Fee Per Gas:	0.000000006610458988 MATIC (6.610458988 Gwei)	
Max Priority Fee Per Gas:	0.0000000025 MATIC (2.5 Gwei)	
Burnt Fees:	0.000057943206967568 MATIC	
Txn Savings:	0.000048164181348664 MATIC	
Gas Price:	0.000000004744642712 MATIC (4.744642712 Gwei)	
Nonce	Position	60 24
Input Data:	Function: vote(uint256 _voteIndex) ***	